

Appl. No. 10/822,995
Atty. Docket No.: 2001B127B/2
Amtd. dated June 19, 2006
Reply to Office Action mailed April 3, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in this application.

Listing of Claims:

1-29 (Canceled)

30. (Currently Amended): A process for adding heat to a reactor system having an oxygenate to olefin reaction zone and a catalyst regeneration zone wherein catalyst is cycled from the reaction zone to the regeneration zone and from the regeneration zone to the reaction zone, the process comprising:

cycling catalyst from said reaction zone to said regeneration zone;
fluidizing catalyst in the regeneration zone in the presence of an oxygen containing gas;
heating the catalyst in said regeneration zone to a first temperature of at least about 225°C (437 °F);

introducing a liquid heating fuel into the regeneration zone wherein the liquid heating fuel has about 500 wppm or less of sulfur and has about 200 wppm or less nitrogen and an autoignition temperature no greater than about 482°C (900°F);

imparting sufficient heat content within said regeneration zone to initiate and sustain ignition of said liquid heating fuel to thereby provide a further heated catalyst; and

providing said further heated catalyst into the reaction zone by cycling said further heated catalyst from said regeneration zone to said reaction zone in order for said further heated catalyst to heat said reaction zone to a temperature of at least 316°C (600°F).

31. (Original): The process of claim 30 which further comprises:

contacting said catalyst with an oxygenate feedstock under conditions sufficient to convert said oxygenate to an olefin-rich product and said heating fuel has about 100 wppm or less of sulfur and has about 100 ppmw or less nitrogen.

32. (Original): The process of claim 30 wherein said heating fuel contains a total of no greater than 20 wppm of metal selected from the group consisting of nickel and vanadium.

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33. (Currently Amended): A process for initially increasing the temperature of a reactor system for making in a reaction zone an olefin product from an oxygenate feedstock in the presence of an oxygenate to olefin molecular sieve catalyst which process comprises:

- a) contacting at least a portion of the catalyst taken from said reaction zone with a regeneration medium in a regeneration zone;
- b) heating said regeneration zone to a first temperature of at least 225°C (437°F);
- c) feeding to said regeneration zone a liquid heating fuel having an autoignition temperature less than the first temperature and containing less than 500 wppm sulfur and less than 200 wppm nitrogen, thereby causing the liquid heating fuel to ignite and provide a further heated catalyst; and
- d) circulating said further heated catalyst from said regeneration zone to the reaction zone in order for said further heated catalyst to heat said reaction zone to a temperature of at least 316°C (600°F).

34. (Original): The process of claim 33 which further comprises:

- a) additionally contacting the feedstock in a reaction zone with said oxygenate to olefin molecular sieve catalyst including said heated catalyst, under conditions effective to convert the feedstock into an olefin product stream.

35. (Original): The process of claim 33 wherein said heating fuel contains less than 100 ppm sulfur and less than 100 wppm nitrogen.